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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/265,601	03/10/1999	WAN-UK CHOI	03364.P010	4721

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 01/14/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/265,601

Applicant(s)
Choi

Examiner
Tracy Dove

Art Unit
1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 29, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

This Office Action is in response to the communication filed on 10/29/02. Applicant's arguments have been considered, but are not persuasive. Claims 1-8 remain rejected in view of the prior art.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/02 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonobe et al., US 5,721,071 "Sonobe".

Sonobe teaches a graphitic material suitable as an electrode material for a non-aqueous solvent-type secondary battery. See col. 1, lines 7-13. A lithium battery is specifically disclosed in col. 7, lines 24-38. Example 4 teaches a petroleum pitch having a quinoline-insoluble content of 1 wt% (organic insoluble impurities) was heat treated at 600°C for 1 hour (coking) in a nitrogen gas stream. Then the pitch was pulverized to obtain carbon precursor particles. The carbon precursor particles were carbonized and graphitized to obtain a graphitic material. Sonobe teaches that the carbon precursor may be heat-treated at 350-700°C in an inert gas atmosphere (heat-treating) to effect further polycondensation and remove light fractions, thereby providing a carbon precursor having an optically anisotropic texture (col. 5, lines 5-16).

Sonobe does not explicitly teach heat treating for "4 hours or more . . . to thereby produce at least 50 weight percent of mesophase particles based on the pitch". Sonobe does not explicitly state that the pitch is dissolved in an organic solvent to remove insoluble components.

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However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because Sonobe teaches that mesophase bead material is produced by heat-treating petroleum pitch or coal pitch for 1-2 hours at 400-450°C (col. 2, lines 24-27). Thus one of skill would have known that the heat-treatment of the carbon precursor taught in col. 5, lines 5-16 of Sonobe would result in the formation of mesophase bead material. While Sonobe does not explicitly teach heat-treating for 4 hours, one of skill would have found heat treating for 4 hours obvious because the duration of the heat-treating step would have an effect on the formation of mesophase bead material. Through routine experimentation, one of skill could have determined the heating durations necessary to produce a specific percent of mesophase bead material. Sonobe teaches heat-treating petroleum pitch at 400-450°C results in the formation of mesophase bead material.

Regarding the limitation that the pitch is dissolved in an organic solvent to remove insoluble components, the invention as a whole would have been obvious to one having ordinary skill because Sonobe suggests that the organic insoluble components have been removed from the petroleum pitch. Example 4 teaches that the petroleum pitch has an quinoline (organic)-insoluble content of 1 wt%. This suggests that the petroleum pitch has been dissolved in quinoline to remove organic-insoluble components.

3⁴ Claims 1-4 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by and alternatively unpatentable over Kubota et al., US 6,139,990 "Kubota".

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See Office Action of 12/6/00 for the reasons for rejections

Claims 1-8 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by and alternatively unpatentable over Hayashi et al., US 5,906,900 "Hayashi".

See Office Action of 12/6/00 for the reasons for rejections

Response to Arguments

Applicant's arguments filed 10/29/02 have been fully considered but they are not persuasive.

Kubota et al.

Claims 1-4 are rejected under 35 U.S.C. 102(e)/103(a). Applicant has submitted an English translation of the foreign priority document. However, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers do not meet the "sufficiency of disclosure" requirement. Specifically, all of the claim limitations of the instant claims (i.e., the intensity ratio of less than 0.2) are not disclosed in the foreign translation of the priority document.

The most important aspect of the examiner's action pertaining to a right of priority is the determination of the identity of invention between the U.S. and the foreign applications. The foreign application may be considered in the same manner as if it had been filed in this country on the same date that it was filed in the foreign country, and the applicant is

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ordinarily entitled to any claims based on such foreign application that he or she would be entitled to under our laws and practice. The foreign application must be examined for the question of sufficiency of the disclosure under 35 U.S.C. 112, as well as to determine if there is a basis for the claims sought. See MPEP § 201.15.

Hayashi et al.

Regarding Hayashi, Applicant argues Hayashi states that the composite carbonaceous material disclosed therein may have an optional shape such as a particulate shape or a fibrous shape (bottom of page 4). Applicant then states that a specific shape is required by Hayashi (top of page 5). Examiner points out that “optional” does not equate to “required”.

Sonobe et al.

Regarding Sonobe, Applicant argues that it is improper to conclude from the pitch content alone that Example 4 of Sonobe teaches the “dissolving” step of the instant claims. Applicant states “it appears as though the petroleum pitch of Example 4 is natural pitch without any pre-treatment”. However, Sonobe suggests that the organic insoluble components have been removed from the petroleum pitch. Example 4 teaches that the petroleum pitch has an quinoline (organic)-insoluble content of 1 wt%. This suggests that the petroleum pitch has been dissolved in quinoline to remove organic-insoluble components.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached Monday-Thursday (9:00 AM-7:30 PM). My supervisor is Pat Ryan, who can be reached at (703) 308-2383. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax numbers are 703-872-9310 (after non-final) and 703-872-9311 (after final).

January 8, 2003


Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700